Maths Curriculum
EYFS – Nursery

The primary intent for our EYFS curriculum.

- *To become a "Mathematical Wizard" of embedded mathematical knowledge and language naturally in everyday play. Subitising, counting and representing marks to at least 5 and matching, measuring and comparing all sorts*

	Autumn	Spring	Summer
Nursery	**Master the Curriculum** -Colours, identify red,blue,yellow, then green & purple. Mixing colours -Matching- Matching is the process in which we connect any two similar objects, which are given in two different sets. -Sorting. When more than two objects are grouped together based on a common characteristic, it is known as sorting -Subitising – perceptual (the ability to recognise the number of objects in front of you without using any mathematical process) • What do you notice? What do you see? • 1 and not 1, 2 and not 2, 3 and not 3 -Dice patterns -Subitising – perceptual & then conceptual (the ability to identify a whole quantity as a result of composing parts (recognised through perceptual subitising) that make up the whole) • How do you see it? • Introduce 5 frames, seeing 1,2,3 on a 5 frame, full and not full -Pattern • Extend AB patterns • Extend AB Outdoor Patterns • AB Movement Patterns • Fix my Pattern • Extend ABC Colour patterns • Extend ABC Outdoor Patterns **Development Matters** - Develop fast recognition of up to 3 objects -Make comparisons between objects relating to size -Say one number for each item in order 1,2,3,4,5 -Know that the last number reached when counting a small set of objects tells you how many there are in total (cardinal principle) Show finger numbers to 5. Extend and create ABAB patterns -Talk about and explore 2D and 3D shapes (for example,	**Master the Curriculum** -Subitising – perceptual (the ability to recognise the number of objects in front of you without using any mathematical process) • What do you notice? What do you see? • 1 and not 1, 2 and not 2, 3 and not 3 -Dice patterns -Subitising – perceptual & then conceptual (the ability to identify a whole quantity as a result of composing parts (recognised through perceptual subitising) that make up the whole) • How do you see it? • Introduce 5 frames, seeing 1,2,3 on a 5 frame, full and not full -Number 3/ Composition of 3/Triangles -Number 4/ Composition of 4/squares/rectangles -Number 5/ Composition of 5/ Pentagon 1:1 counting Numeral recognition Consolidate 1-5 -Number 6 Introduce 10 frame -Height & Length • Tall and short • Long and short -Mass- heavy and light, heavier and lighter. Relate to books -Capacity- full and empty **Development Matters** -Experiment with their own symbols and marks as well as numerals. - Recite numbers past 5 - Say one number for each item in order 1,2,3,4,5 -Experiment with their own symbols and marks as well as numerals. -Know that the last number reached when counting a small set of objects tells you how many there are in total (cardinal principle)	**Master the Curriculum** -Subitising – perceptual (the ability to recognise the number of objects in front of you without using any mathematical process) • What do you notice? What do you see? • 1 and not 1, 2 and not 2, 3 and not 3 -Subitising – perceptual & then conceptual (the ability to identify a whole quantity as a result of composing parts (recognised through perceptual subitising) that make up the whole) • How do you see it? • 5 frames, seeing 1,2,3 on a 5 frame, full and not full. • 10 frame, finding 6, one more than 5. -Sequencing- daily routines, pictures in rhymes and books. -Positional language- on, under, in, out, in front and behind. -More/fewer than- comparing groups saying which set has more/fewer. -2D shapes- circles, triangles, rectanges (addressing misconceptions and teaching a square is a 'special' rectangle). Naming shapes and identifying/recognising their properties. -3D shapes- cubes, cuboids, cylinders, spheres. Identifying/recognising shapes, talking about their properties. -Patterns using 2d and 3d shapes -What comes before/after? Using number lines to sequence numbers. Sequencing numerals to 5. Jumping forwards and backwards along the number line. **Development Matters** -Explore the composition of numbers to 10 -Recite numbers past 5 -Know that the last number reached when counting a small set of objects tells you how many there are in total (cardinal principle)

	circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. **Trust Ready** -Shows an interest in numbers through games and playful activities -Begin to say the number names, some of which are in the right order (rote counting) -Begin to count on their fingers to 3 -Compare amounts saying which has more or the same -Listen and enjoy number songs and rhymes – join in with some parts e.g finish the line of song, fill in missing parts -Explore how things look from different viewpoints including things that are near or far away -Predict, move and rotate objects to fit the space or create the shape they would like (inset puzzles and pattern blocks) -Begin to understand some talk about immediate past and future – before, now and next -Join in with simple patters in sounds, objects, games, stories, dance and movements, predicting what comes next	-Select shapes appropriately: flat surfaces for a building, a triangular pattern for a roof, etc. -Describe a familiar route -Compare quantities using language: 'more than', 'fewer than'. Make comparisons between objects relating to size, length, weight and capacity. **Trust Ready** -In preparation for subitising, play games with a dice and dominos -With support name numicon pieces to 5 whilst printing in sand or paint -Recite numbers up to 5 and beyond with support - Adult to model counting at all times in the school day, for example lining up, giving out fruit… -Begins to point, touch or move each item, saying one number name for each item - 1, 2, 3 (stable order principle) whilst playing -Begin to recognise numbers which are familiar to themselves, e.g., their age… Have visual number lines on display and begin to refer to them. How old are you 3? 4? Can you find the number 3? … -Chant rhymes and songs involving numbers, e.g., *five speckled frogs* -Show fingers for numbers to 5 with support whilst counting or singing number songs -Becoming familiar and aware of (through play) the key mathematical resources, including: numicon, counters, tens frames and cubes -Compare two small groups of objects, saying when there are the same number of objects in each group, e.g., 'You've got two, I've got two. Same!' -Play with and begin to name some common shapes, e.g., name circle, square -Respond to both informal and common shape names, e.g., find something pointy, twisty, wiggly, bumpy, heart, star, flower, straight, wavy, bent -Classify and sort shapes by a given criteria, for example *big circles and small circles*	-Link numbers and amounts together -Solve real world mathematical problems with numbers up to 5. -Compare quantities using language 'more than', 'fewer than'. -Combine shapes to make new ones – an arch, a bigger triangle, etc. -Discuss routes and locations, using words like 'in front of' and 'behind'. -Understand position through words alone – for example, "The bag is under the table," – with no pointing. -Make comparisons between objects relating to size, length, weight and capacity -Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. -Begin to describe a sequence of events real or fictional using words such as 'first', 'then'. **Trust Ready** -Subitise up to three objects (fast recognition without counting) -Recite numbers past 5 by rote and with visual aid e.g number line with picture to match each numeral -Recognise that each counting number is one more than the one before – visual aid including the idea of a staircase in ones -Count back from 5 to 0 by rote -Hold fingers up correctly for each number to 5 when counting orally -Count on in 1s from any number up to 5 – visual aid and fingers -Be able to say the number before and after a given number to 5 – visual aids -Chant rhymes and songs involving numbers to 5 and beyond, e.g., *1,2,3,4,5 once I caught a fish alive* -Recognise numerals 0-3

		-Classify and sort classroom objects according to a given criteria, e.g., put the books in the book area, cars in the basket … -Begin to understand and respond to the language of position, e.g., on, inside, next to, under, over, in front, behind - playing with practitioner and following instructions -Show an awareness of what's happening now and what is happening next through every day activities, getting dressed – first socks then shoes -Create and extend AB patterns, e.g., stick, leaf, stick… red, blue, red … movement patterns clap, stamp … -Explore differences in size, length, weight and capacity – which one is longest? Heaviest? Full? Empty?	-Counting one-to-one correspondence to 3 – how many? (1:1 principle) -Counting one-to-one correspondence to 3 – give me? (1:1 principle) -Know that the order in which objects are counted doesn't affect the total e.g left to right or right to left … (order irrelevance principle) -When counting objects, Say one number for each item in order e.g 1,2,3 … (stable order principle) -Know that the last number reached when counting a small set tells you how many there are (cardinal principle) -Know that anything can be counted to 3, for example drum beats, claps, pictures in a book, large objects and tiny… (Abstraction principle) -Link numerals and amounts to up to 3 by matching objects to the number -Experience the language of zero meaning nothing through play and every day practical activities, e.g., *there are no oranges left in the bowl* -Display an understanding of the composition of numbers to 3, for example 1 + 2, 0 +3, 1+1+1 with objects -Begin to add and subtract using practical resources to 3, with practitioners modelling the language e.g., add*, altogether, total, is the same as, subtract, take away, how many left, more and less, bigger and smaller* -Solve real world maths problems with numbers up to 5 – e.g., there are 4 children and 3 chairs – how many more chairs do we need? -Begin to sing days of the week – begin to understand yesterday and tomorrow -Begin to understand ordinal numbers in real-life situations: first, second … -Order and compare a set of numbers 0-3, and explore the language more and fewer with objects and quantities -Match items to small numbers in the environment e.g 5 pencils in the pot, 3 glue sticks … picture clues

			-Make pictures and patterns (e.g., in sand or paint) using key mathematical resources, including: numicon, counters, 10-frames and cubes -Be able to recognise and name numicon pieces for 1, 2, 3,4 and 5 -Say some common shape names, e.g., circle, square, rectangle, triangle -Talk about and explore 2D and 3D shapes using informal language – sides, corners, straight, flat, round -Enjoy partitioning and combing shapes to make new shapes, e.g., circle, square, rectangle, triangle, heart, star, diamond -Sort shapes by a given criteria, for example *circles here, straight sides in here – use a variety of sized shapes* -Understands and uses the language of position, e.g., on, inside, next to, under, over, in front, behind through play, for example a doll's house or garage -Create their own spatial patterns showing some organisation or regularity -Make models in the block area and respond to practitioners using the vocabulary can you make it taller? Shorter? Longer? -In meaningful contexts, find the longer or shorter, heavier or lighter and more/less full of two items -Recognise and discuss patterns on clothes, in nature and in the environment, e.g., stripes, spots, checks, etc -Notice and correct an error in a repeating pattern – show AB patterns correct and incorrect -Recall a sequence of events in everyday life and stories -Show an awareness of a sense of time, e.g., morning, afternoon, evening and night-time

Nursery	Autumn	Cycle 1 – We're going on a bear hunt, Peace at last, Goldilocks and the three bears, Dear Santa Cycle 2 - The tiger who came to tea, The three little pigs, room on the broom, Kipper's Christmas Eve	
What will be taught … key ideas?		I wonder …	Key vocabulary
Focus activities: Identifying colours- start with primary colours, then extend. Matching pairs of socks, shoes etc Matching number shapes Matching size Sorting objects that are the same by a given characteristic such as by shape, size or colour into groups. Identifying 'the same' and 'different' Play guess the rule- what do they notice about objects that have been grouped by an adult Showing 1 then 2 with fingers - finding 1&2 objects. 1&2 on the five frame, dice patterns and counting 1&2. Recognising the numeral 1&2 and linking it to a set. Mark making to represent 1&2 in their own way Making ABAB patterns- exploring repeating patterns with body percussion, movement, objects (sticks and leaves outdoors, vehicles , colours etc…) Extend ABAB patterns. Can the children copy the pattern? Can the children continue the pattern? Can the children create their own pattern? Make and extend ABC patterns.		I wonder what it looks/sounds/feels like…? I wonder what happens if…? I wonder what you see? I wonder what you notice? I wonder how it's made…? I wonder how many? I wonder why/how/? I wonder what comes next? Why? I wonder what is the same? I wonder what is different? I wonder if this always happens? Never happens? Sometimes happens?	Observe/Look Imagine Create What do you see? What do you notice? Subitise 5 Frame Number Sort Count Colours- red, blue, yellow, green, purple, pink, black, white, orange Match Sort Comparisons- 'the same', 'different'. Big Small Guess Check Pattern Copy Shape- square, circle, rectangle, square Straight Side Corner

Nursery	Spring	Cycle 1 – The Gingerbread Man, Kitchen disco, Cleversticks, Sharing a shell Cycle 2 – Elmer, Rosie's walk, Bathroom boogie, Owl Babies	
What will be taught … key ideas?		I wonder ..	Key vocabulary
Focus activities: Showing 1-6 with fingers- finding 1-6 objects, 1-6 on the five frame, dice patterns and counting 1-6. Making and identifying 1-6 using early number bonds with fingers and objects. Begin to recognising the numeral 1-6 and linking it to a set. Mark making to represent 1-6 in their own way. Recognise and name 2D shapes. Introduce 10 frame 'There are too many objects for our 5 frame, what can we do?' Making links between properties of shapes and the numerals 3,4&5, eg how many sides, corners? Introduce 3D shapes into children's play using informal and mathematical language. Comparing the height of different objects using the words 'tall and short' Comparing the length of different objects using the words 'long and short' Introduce balance scales. Children to explore what happens when they put different objects into them, beginning to use the words 'heavier and lighter'. Use balance scales in children's play eg mud kitchen, playdough, construction. Exploring and comparing the capacity of different containers using the words 'full and empty'. Vocabulary modelled and supported in water play.		I wonder what it looks/sounds/feels like…? I wonder what happens if…? I wonder what you see? I wonder what you notice? I wonder how it's made…? I wonder how many? I wonder why/how/? I wonder what comes next? Why? I wonder what is the same? I wonder what is different? I wonder if this always happens? Never happens? Sometimes happens?	Observe/Look Imagine Create What do you see? What do you notice? Subitise 5 Frame Number Sort Count Tall Short Long Comparisons- 'the same', 'different'. Shape- square, circle, rectangle, square Heavy Light Full Nearly full Empty

Nursery	Summer	Cycle 1 – Peepo, Whatever next, the selfish crocodile, the very hungry caterpillar Cycle 2 – Walking through the jungle, Jack and the beanstalk, Farmyard hullabaloo	
What will be taught … key ideas?		I wonder ..	Key vocabulary
Focus activities: Sequence pictures from a Nursery rhyme linked to Little Wandle. Sequence pictures from daily routines- linked to box of tricks. Box of tricks- days of the week sequencing. Marvelous Monday, Terrific Tuesday, Wonderful Wednesday, Thinking Thursday, Fantastic Friday. Have an awareness of weekdays and weekends. Place objects on or under a table or chair. Place objects in or out of a basket, bag. Place objects in front or behind a given object, eg the crab behind the shell. Making links between properties of shapes and the numerals 3,4&5, eg how many sides, corners? Introduce 3D shapes into children's play using informal and mathematical language. Identify some 3D shapes and begin to talk about their properties. Making and identifying 1-6 using early number bonds with fingers and objects. Recap the different pairs of numbers that make up 3,4&5. Understand the concept of yesterday, today and tomorrow. Making links with before and after (Link to Launchpad). Begin to sequence and order numerals to 5. What comes before? What comes after? Recognising the numeral 1-6 and linking it to a set		I wonder what it looks/sounds/feels like…? I wonder what happens if…? I wonder what you see? I wonder what you notice? I wonder how it's made…? I wonder how many? I wonder why/how/? I wonder what comes next? Why? I wonder what is the same? I wonder what is different? I wonder if this always happens? Never happens? Sometimes happens?	Observe/Look Imagine Create What do you see? What do you notice? Subitise 5 Frame Number Sort Count Days of the week Week day Weekend In/out On/under In front/behind Sphere Cube Cuboid Cylinder Yesterday Today Tomorrow Before After
